

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	71	(US-20060196603-\$ or US-20080124944-\$ or US-20080121179-\$ or US-20080121178-\$ or US-20080121177-\$ or US-20060196420-\$).did. or (US-6821347-\$ or US-6450117-\$ or US-6829056-\$ or US-6444039-\$ or US-6800139-\$ or US-6070551-\$ or US-5453124-\$ or US-6403491-\$ or US-6001267-\$ or US-5522934-\$ or US-6230651-\$ or US-5734143-\$ or US-5571366-\$ or US-5338363-\$ or US-5200016-\$ or US-4992301-\$ or US-6500314-\$ or US-6475571-\$ or US-6391148-\$ or US-6270862-\$ or US-6221221-\$ or US-6214162-\$ or US-6190495-\$ or US-6077357-\$ or US-6076483-\$ or US-6013155-\$).did. or (US-5900103-\$ or US-5567267-\$ or US-5421595-\$ or US-5356672-\$ or US-5024716-\$ or US-4989541-\$ or US-4439401-\$ or US-4270999-\$ or US-6237526-\$ or US-6132805-\$ or US-6106737-\$ or US-6042687-\$ or US-5994662-\$ or US-5935373-\$ or US-5916455-\$ or US-5897059-\$ or US-5851558-\$ or US-5104634-\$ or US-4943345-\$ or US-5589002-\$ or US-6190496-\$ or US-3913845-\$ or US-6565661-\$ or US-5643394-\$ or US-6302965-\$ or US-5792269-\$ or US-5680013-\$).did. or (US-7387685-\$).did. or (US-2857204-\$ or US-1968348-\$).did. or (JP-2006310481-\$ or JP-2006245533-\$).did. or (DE-2419148-\$ or BE-851932-\$ or EP-401829-\$ or CA-2209274-\$ or JP-09181065-\$ or US-6302965-\$ or US-5792269-\$).did.	US-PGPUB; USPAT; USOCR; JPO; DERWENT	OR	ON	2010/03/04 08:13
L2	58	NI-TUQIANG.in. or DEMOS-ALEX.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/04 09:20
L3	86	"Lam Research".asn. and nozzle.clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/04 09:53

L4	86	3 not 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/04 09:53
S1	0	((("US20030000924A1") or ("US6270862B1") or ("US6143078A") or ("US6106663A") or ("US6070551A") or ("US6013155A") or ("US5772771A") or ("US5678595A") or ("US5614055A") or ("US5547714A") or ("US5522934A") or ("US5297738A") or ("US5290993A") or ("US5232164A") or ("US5002928A") or ("US4854263A") or ("US4730775A") or ("US4481228A") or ("US4439401A") or ("US4389229A") or ("US4313721A") or ("US4293755A") or ("US4080927A") or ("US4069974A") or ("US3995811A") or ("US3881863A") or ("US3745969A") or ("US3592575A"))).PN.	USPAT; USOCR	OR	OFF	2004/07/29 12:03
S2	27	((("3592575") or ("3745969") or ("3881863") or ("3995811") or ("4069974") or ("4080927") or ("4293755") or ("4313721") or ("4389229") or ("4439401") or ("4481228") or ("4730775") or ("4854263") or ("5002928") or ("5232164") or ("5290993") or ("5297738") or ("5522934") or ("5547714") or ("5614055") or ("5678595") or ("5772771") or ("6013155") or ("6070551") or ("6106663") or ("6143078") or ("6270862"))).PN.	USPAT; USOCR	OR	OFF	2004/07/29 12:05
S3	114	("118"/\$.ccls. or "156"/\$.ccls.) and (injector or nozzle) same (\$sonic))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 12:22

S4	45	((("5772771") or ("5620523") or ("5614055") or ("5554226") or ("5532190") or ("5525159") or ("5522934") or ("5447570") or ("5387289") or ("5368646") or ("5346578") or ("5304250") or ("5250092") or ("5105761") or ("5069930") or ("4834022") or ("4817558") or ("4716852") or ("4118539") or ("3717439"))),PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/07/29 12:06
S5	3154	(wafer or substrate) and ((injector or nozzle) same (\$5sonic)) not S3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 12:55
S6	2296	(wafer or substrate) and ((injector or nozzle) with (\$5sonic)) not S3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 12:55
S7	223	((("118"/\$ccls. or "156"/\$ccls.) and ((injector or nozzle) with (\$5sonic))) not S3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 12:24
S8	2150	(wafer or substrate) and ((injector or nozzle) with (\$5sonic)) not (S3 or S7)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 12:55
S9	3008	(wafer or substrate) and ((injector or nozzle) same (\$5sonic)) not (S3 or S7)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 12:55
S10	982	S9 and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 12:55
S11	550	S10 and (reactor or chamber or vessel) same (wafer or substrate or semiconductor)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 12:57
S12	550	S10 and ((reactor or chamber or vessel) same (wafer or substrate or semiconductor))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 13:01
S13	40	S12 and o-ring	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 13:10
S14	40	S12 and o-rings	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 13:10
S15	510	S12 not S13	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 13:10

S16	202	S15 and ((holes or conduits) with (injector or nozzle))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 13:21
S17	179	S12 and ((holes or conduits) with (injector or nozzle)) not ("216"/\$).ecls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 13:25
S18	102	S12 and ((holes or conduits) with (injector or nozzle)) not ("216"/\$.ecls. or "347"/\$.ecls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 13:25
S19	721228	((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or (("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/11/13 10:33
S20	763	((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or (("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or (("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and (((nozzle or injector) same (window and (antenna or coil))))))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:07
S21	699	(((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or (("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or (("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and (((nozzle or injector) same (window and (antenna or coil)))))) not ((((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or (("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil))))))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:07

		CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.)) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))) and (velocity same (injector or nozzle)))				
S22	3651	(((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.)) and ((nozzle or injector) same plasma) not (((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.)) and ((nozzle or injector) same (window and (antenna or coil)))) or (((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.)) and ((nozzle or injector) and (window and (antenna or coil)))) not (((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.)) and ((nozzle or injector) same (window and (antenna or coil))))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:11

S23	2384	(((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same plasma) not (((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil))) or (((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))))) and (chamber or reactor or vessel)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:11
S24	721228	(((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:12
S25	1521	nozzle with (gas and holes and angle)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:12
S26	914	(((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) with (\$\$sonic)) and (wafer or substrate)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:12
S27	1	((US-5734143-\$ or US-5897059-\$ or US-5104634-\$ or US-6403491-\$ or US-6391148-\$).did.) and \$5sonic	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13

S28	473	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) with (\$\$sonic)) and (wafer or substrate)) and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13
S29	914	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) with (\$\$sonic)) and (wafer or substrate)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13
S30	443	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) with (\$\$sonic)) and (wafer or substrate)) not ((((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) with (\$\$sonic)) and (wafer or substrate)) and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13
S31	746	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) same (\$\$sonic)) and (wafer or substrate)) and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13
S32	512	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) same (\$\$sonic with gas)) and (wafer or substrate)) and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13
S33	97	(((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13

S34	64	(((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))))) and (velocity same (injector or nozzle)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13
S35	10	((("4859493" or ("4851254" or ("4822466" or ("4816286" or ("4767608" or ("4645977" or ("3961103" or ("3705937" or ("3630679" or ("3005762"))).PN.	USPAT; USOCR	OR	OFF	2004/01/09 10:13
S36	132	(((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))))) not ((((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))))) and (velocity same (injector or nozzle)))) and flange	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13



S37	10	((("6230615") or ("619510") or ("S888309") or ("5870271") or ("5843847")),PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/01/09 10:13
S38	567	(((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or e23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$). CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$). CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23e016\$.ipc. or e23e014\$.ipc. or "h011021\$.ipc" or e23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$). CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$). CCLS. OR ("216"/\$).CCLS.))) and (((nozzle or injector) same (window and (antenna or coil)))) not (((((c23e016\$.ipc. or e23e014\$.ipc. or "h011021\$.ipc" or e23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$). CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$). CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))) and ((velocity same (injector or nozzle))) not (((((c23e016\$.ipc. or e23e014\$.ipc. or "h011021\$.ipc" or e23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$). CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$). CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))) not (((((c23e016\$.ipc. or e23e014\$.ipc. or "h011021\$.ipc" or e23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$). CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$). CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))) not (((((c23e016 \$.ipc. or e23e014\$.ipc. or "h011021 \$.ipc" or e23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$). CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$). CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))) not (((((c23e016 \$.ipc. or e23e014\$.ipc. or "h011021 \$.ipc" or e23f01\$.ipc.) or ("156"/\$).	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:13

		CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) and (window and (antenna or coil))) not (((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))) and (velocity same (injector or nozzle)))) and flange)				
S39	223	(((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same plasma) not (((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))) or (((c23e016\$.ipc. or c23e014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and ((nozzle or injector) same (window and (antenna or coil)))) and (chamber or reactor or vessel)) and window	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:14

S40	722	(((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and (injector or nozzle) and plasma	JPO	OR	ON	2004/01/09 10:14
S41	31	(((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and (injector or nozzle) and plasma) and window	JPO	OR	ON	2004/01/09 10:14
S42	15	(((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and (injector or nozzle) and plasma) and dielectric not (((((c23c016\$.ipc. or c23c014\$.ipc. or "h011021\$.ipc" or c23f01\$.ipc.) or ("156"/\$).CCLS. OR ("118"/\$).CCLS. OR ("438"/\$).CCLS. OR ("427"/\$).CCLS. OR ("219"/\$).CCLS. OR ("315"/\$).CCLS. OR ("216"/\$).CCLS.))) and (injector or nozzle) and plasma) and window)	JPO	OR	ON	2004/01/09 10:14
S43	34	((("0010257") or ("6278241") or ("5149375") or ("5851294") or ("5522934") or ("4980204") or ("5885358") or ("5772771") or ("5290993") or ("5734143") or ("6270862") or ("5897059") or ("6070551") or ("6013155") or ("3756511") or ("5951771") or ("6013155") or ("3756511") or ("5614055") or ("6013155") or ("5614055") or ("3756511") or ("5614055") or ("5951771") or ("5614055"))).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/01/09 10:14
S44	5	((("5897059") or ("5734143") or ("5685942") or ("6013155") or ("5772771") or ("5685942") or ("5772771") or ("5685942"))).PN.	USPAT; USOCR	OR	OFF	2004/01/09 10:14
S45	473	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) with (\$\$sonic)) and (wafer or substrate)) and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:14

S46	5	((US-5734143-S or US-5897059-S or US-5104634-S or US-6403491-S or US-6391148-S).did.	USPAT	OR	OFF	2004/01/09 10:14
S47	46	((("5653806") or ("5614055") or ("5591268") or ("5556521") or ("5552124") or ("5531834") or ("5529657") or ("5525159") or ("5522936") or ("5522934") or ("5498313") or ("5415728") or ("5405480") or ("5401350") or ("5399387") or ("5384008") or ("5368710") or ("5346578") or ("5290993") or ("5280154") or ("5279865") or ("5267607") or ("5262029") or ("5252133") or ("5231334") or ("5192370") or ("5169509") or ("5164040") or ("5134965") or ("5105761") or ("4996077") or ("4992301") or ("4980204") or ("4948458") or ("4943345") or ("4919745") or ("4913929") or ("4877641") or ("4854263") or ("4806321") or ("4691662") or ("4614639") or ("4579618") or ("4512283") or ("4270999") or ("4173661")).PN.	USPAT; USOCR	OR	OFF	2004/01/09 10:14
S48	477	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) with (\$\$sonic) and (wafer or substrate))) and ((wafer or substrate) same (reactor or chamber or vessel or tank or station or hous\$3 or encase \$4 or container or ampoule)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:14
S49	15	"6,013,155"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:14
S50	20	((("5772771") or ("5734143") or ("5614055") or ("5580385") or ("5540800") or ("5531834") or ("5529657") or ("5525159") or ("5522934") or ("5425810") or ("5252133") or ("5164040") or ("5134965") or ("4996077") or ("4992301") or ("4943345") or ("4691662") or ("4614639") or ("4581101") or ("4270999")).PN.	USPAT; USOCR	OR	OFF	2004/01/09 10:14
S51	121	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) same (\$\$sonic with (gas and velocity)))) and (wafer or substrate))) and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:14

S52	81	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) same (\$\$sonic with (gas and velocity))) and (wafer or substrate))) not (((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) same (\$\$sonic with (gas and velocity))) and (wafer or substrate))) and plasma)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:20
S53	211	(((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) and (\$\$sonic with (gas and velocity))) and (wafer or substrate))) not (((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) same (\$\$sonic with (gas and velocity))) and (wafer or substrate))) and plasma) not (((((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) same (\$\$sonic with (gas and velocity))) and (wafer or substrate))) and plasma)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 10:51
S54	359	((injector or nozzle or sprayer or port or jet or "shower head" or grid or showerhead or diffus\$3 or baffle or permeat\$3 or dispers\$3 or mix\$3 or distribut\$3) with gas) and (\$\$sonic with (gas and velocity)) and (wafer or substrate)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 11:26

S55	46	((("5653806") or ("5614055") or ("5591268") or ("5556521") or ("5552124") or ("5531834") or ("5529657") or ("5525159") or ("5522936") or ("5522934") or ("5498313") or ("5415728") or ("5405480") or ("5401350") or ("5399387") or ("5384008") or ("5368710") or ("5346578") or ("5290993") or ("5280154") or ("5279865") or ("5267607") or ("5262029") or ("5252133") or ("5231334") or ("5192370") or ("5169509") or ("5164040") or ("5134965") or ("5105761") or ("4996077") or ("4992301") or ("4980204") or ("4948458") or ("4943345") or ("4919745") or ("4913929") or ("4877641") or ("4854263") or ("4806321") or ("4691662") or ("4614639") or ("4579618") or ("4512283") or ("4270999") or ("4173661"))).PN.	USPAT; USOCR	OR	OFF	2004/01/09 13:43
S56	2	"6403491".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 13:46
S57	5	((("6230651") or ("6165910") or ("5888309") or ("5870271") or ("5843847"))).PN.	USPAT; USOCR	OR	OFF	2004/01/09 13:48
S58	2	((("6500314") or ("3756511"))).PN.	USPAT; USOCR	OR	OFF	2004/01/09 13:51
S59	4	"6,500,314"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 14:14
S60	2	"5792269".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 14:16
S61	2	"6444039".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 14:18
S62	13	((("6265311") or ("6059885") or ("6050506") or ("5954887") or ("5741363") or ("5670218") or ("5624498") or ("5614026") or ("5552017") or ("5532190") or ("5106453") or ("4993358") or ("4820371"))).PN.	USPAT; USOCR	OR	OFF	2004/01/09 14:56
S63	4	"6,500,314"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 15:29

S64	2	"6,013,155".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 16:20
S65	5	((("5897059") or ("5734143") or ("5685942") or ("5772771") or ("5685942") or ("6013155") or ("6013155") or ("5772771") or ("5685942") or ("5772771") or ("5685942"))).PN.	USPAT; USOCR	OR	OFF	2004/01/09 16:22
S66	9	"5,734,143"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/09 16:23
S67	209	((o-ring or O-ring) same ((nozzle or jet) and (wafer or substrate)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/12 10:45
S68	6	"5,851,558"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/01/12 10:45
S69	1	"3829548".PN.	USPAT	OR	OFF	2004/01/12 10:46
S70	1	"4012025".PN.	USPAT	OR	OFF	2004/01/12 10:46
S71	1	"4403933".PN.	USPAT	OR	OFF	2004/01/12 10:46
S72	1	"5380187".PN.	USPAT	OR	OFF	2004/01/12 10:46
S73	1	"5543104".PN.	USPAT	OR	OFF	2004/01/12 10:46
S74	5	((("6013155") or ("5734143") or ("5772771") or ("5685942") or ("6077357") or ("5772771") or ("5685942") or ("5772771") or ("5685942"))).PN.	USPAT; USOCR	OR	OFF	2004/07/29 11:47
S75	2	us-20010010257-S.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/07/29 11:47
S82	12	((("5685942") or ("5772771") or ("6132512") or ("5685942") or ("5772771") or ("6077357") or ("6132512") or ("5685942") or ("5772771") or ("5734143") or ("6132512") or ("4612077") or ("6132512") or ("5685942") or ("5772771"))).PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/07 14:14
S83	8	((("5,685,942") or ("5,772,771") or ("6,077,357") or ("6,132,512"))).PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/06 08:51

S84	10	((("5,685,942") or ("5,772,771") or ("6,077,357") or ("6,132,512") or ("5,734,143"))).PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/06 08:51
S85	1	("20010010257").PN.	US-PGPUB	OR	OFF	2006/02/08 12:39
S86	5	((("5685942") or ("5772771") or ("6132512") or ("6077357") or ("5734143"))).PN.	USPAT	OR	OFF	2006/02/08 12:40
S87	2	("6140215").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/21 12:13
S88	142	("4138306" I "4151325" I "4178877" I "4282267" I "4352834" I "4365587" I "4366208" I "4410758" I "4504518" I "4532199" I "4535000" I "4557943" I "4618542" I "4657774" I "4678679" I "4689093" I "4691662" I "4702934" I "4716048" I "4717584" I "4717585" I "4717586" I "4718976" I "4726963" I "4728528" I "4759947" I "4772486" I "4774195" I "4778692" I "4784874" I "4792378" I "4798165" I "4801468" I "4803093" I "4818560" I "4818563" I "4835005" I "4844950" I "4851302" I "4853251" I "4869923" I "4869924" I "4870030" I "4876983" I "4885067" I "4886683" I "4888062" I "4888088" I "4897709" I "4898118" I "4900694" I "4908329" I "4908330" I "4913929" I "4914052" I "4926229" I "4927786" I "4937094" I "4946514" I "4951602" I "4954397" I "4957772" I "4959106" I "4971832" I "4977106" I "4987856" I "4989544" I "4992305" I "4992839" I "4998503" I "5000113" I "5002617" I "5002618" I "5002793" I "5002796" I "5006180" I "5007971" I "5008726" I "5010842" I "5017403" I "5018479" I "5024706" I "5028488" I "5030475" I "5037666" I "5039354" I "5052339" I "5061511" I "5073232" I "5085885" I "5087542" I "5093149" I "5093150" I "5099790" I "5100495" I "5122431" I "5126169" I "5130170" I "5139825" I "5151296" I "5154135" I "5156820" I "5173327" I "5175017" I "5178904" I "5178905" I "5180435" I "5192370" I "5213997" I "5220181" I "5246881" I "5248380" I "5256455" I "5260236" I "5268034"	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/21 12:35



		"5273588" I "5279857" I "5308655" I "5318654" I "5342471" "5342652" I "5356476" I "5370739" I "5378501" I "5396404").PN. OR ("5416045" I "5433787" I "5434110" I "5443647" "5449410" I "5453124" I "5610106" I "5665640" I "5716870" "5866213" I "5908508").PN. OR ("6140215").URPN.				
S89	1	"5010842".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/21 12:35
S90	40	("4262631" I "4434188" I "4689093" I "4716852").PN. OR ("5010842").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/21 12:39
S91	1123	118/723m?.ccls. or 156/345.36.ccls. or 156/345.41.ccls. or 156/345.42. ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/21 12:40
S92	1088	S91 and plasma	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/21 12:46
S93	17	"quartz showerhead" and (wafer or substrate)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/21 13:10
S94	29	("3297501" I "4147571" I "4597983" I "4645687" I "4650693").PN. OR ("4989541"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/21 13:00
S95	10	"dielectric showerhead" and (wafer or substrate)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/21 13:26
S96	2	"5685942".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/21 13:27
S97	15	("5540800" I "5556501" I "5571366").PN. OR ("5685942"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/21 13:27
S98	19	("5614060" I "5683538" I "5685942" I "5824606").PN. OR ("5935373").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/21 13:30
S99	2	((("5,935,373") or ("4439401")).PN.	USPAT	OR	OFF	2006/08/07 09:11
S100	5	((("5935373") or ("4439401")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/01 12:51

S101	2	("6821347").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/13 10:58
S102	86	(("20010011526"   "20010045187"   "20020007790"   "20020043216"   "20020052097"   "20020073924"   "20020076490"   "20020076507"   "20020076508"   "20020094689"   "20020100418"   "20020104481"   "20020108714"   "20020127745"   "20020144655"   "20020162506"   "20020164420"   "20020195056"   "20020197402"   "20030023338"   "20030027428"   "20030027431"   "20030066483"   "20030070609"   "20030070617"   "20030070618"   "20030075273"   "20030079686"   "20030098372"   "20030098419"   "20030106490"   "20030121608"   "20030192645"   "5131752"   "5200023"   "5377429"   "5480818"   "5589002"   "5599513"   "5643394"   "5788778"   "5792269"   "5851849"   "5879459"   "5908947"   "5932286"   "5968587"   "5972430"   "6042652"   "6059885"   "6079426"   "6109206"   "6139700"   "6143659"   "6144060"   "6174377"   "6174809"   "6203613"   "6237529"   "6270572"   "6287965"   "6297539"   "6305314"   "6329297"   "6342277"   "6346477"   "6374831"   "6387185"   "6387207"   "6428859"   "6450117"   "6451119"   "6461436"   "6503330"   "6509280"   "6534007"   "6534395"   "6540838"   "6551929"   "6562140"   "6573184"   "6579372"   "6579374"   "6630201"   "6635965"   "6638879").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/13 10:34
S103	6	((("6,849,241") or ("5,532,190") or ("5,950,925")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/13 10:58
S104	26	((("3854443"   "4810322"   "4980204"   "5269847"   "5453124").PN. OR ("5532190"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/13 10:58

S105	59	("20020188417"   "20030011786"   "4611919"   "4842683"   "4867841"   "4924807"   "4931135"   "4935661"   "4953982"   "4960488"   "4980204"   "5070814"   "5084126"   "5244501"   "5252178"   "5269847"   "5372673"   "5389197"   "5405488"   "5427878"   "5453124"   "5522934"   "5532190"   "5556521"   "5589002"   "5592358"   "5614026"   "5624498"   "5653808"   "5683517"   "5683548"   "5720818"   "5767628"   "5772771"   "5814153"   "5819434"   "5882417"   "5910011"   "5913102"   "5963329"   "5976308"   "5980686"   "5997950"   "6001267"   "6012478"   "6015465"   "6090210"   "6108189"   "6113984"   "6159297"   "6170428"   "6179924"   "6185839"   "6303507"   "6333272"   "6350390"   "6364957"   "6388253"   "6403491").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/13 11:00
S106	5	("5843847"   "5870271"   "5888309"   "6165910"   "6230651").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/13 11:15
S107	29	(showerhead with (hole and angle)) and (wafer or substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/11/13 11:16
S108	1180	((hole with (angle and gas))) and (wafer or substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/11/13 11:32
S109	2	("4661203").PN. OR ("5200016"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/13 11:49
S110	200	S108 and (window)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/11/13 11:58
S111	2	("5599513").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/13 11:58

S112	46	(US-6013155-\$ or US-6230651-\$ or US-4439401-\$ or US-5935373-\$ or US-6070551-\$ or US-6500314-\$ or US-6190495-\$ or US-6076483-\$ or US-5916455-\$ or US-5024716-\$ or US-4989541-\$ or US-4147571-\$ or US-6214162-\$ or US-5571366-\$ or US-6270862-\$ or US-6106737-\$ or US-6221221-\$ or US-5900103-\$ or US-6237526-\$ or US-5567267-\$ or US-6132805-\$ or US-6042687-\$ or US-5104634-\$ or US-6403491-\$ or US-6391148-\$ or US-4943345-\$).did. or (US-5734143-\$ or US-5897059-\$ or US-5356672-\$ or US-4992301-\$ or US-4270999-\$ or US-5421595-\$ or US-5994662-\$ or US-5851558-\$ or US-6077357-\$ or US-6475571-\$ or US-6821347-\$ or US-6450117-\$ or US-6829056-\$ or US-5453124-\$ or US-5522934-\$ or US-6001267-\$ or US-6800139-\$ or US-6444039-\$ or US-5200016-\$ or US-5338363-\$).did.	USPAT	OR	ON	2007/11/13 11:59
S113	4	((("5935373") or ("5200016")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/13 12:20
S114	4	((("5,935,373") or ("5200016")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/05/20 09:53
S115	45	(US-6821347-\$ or US-6450117-\$ or US-6829056-\$ or US-6444039-\$ or US-6800139-\$ or US-6070551-\$ or US-5453124-\$ or US-6403491-\$ or US-6001267-\$ or US-5522934-\$ or US-6230651-\$ or US-5734143-\$ or US-5571366-\$ or US-5338363-\$ or US-5200016-\$ or US-4992301-\$ or US-6500314-\$ or US-6475571-\$ or US-6391148-\$ or US-6270862-\$ or US-6221221-\$ or US-6214162-\$ or US-6190495-\$ or US-6077357-\$ or US-6076483-\$ or US-6013155-\$).did. or (US-5900103-\$ or US-5567267-\$ or US-5421595-\$ or US-5356672-\$ or US-5024716-\$ or US-4989541-\$ or US-4439401-\$ or US-4270999-\$ or US-6237526-\$ or US-6132805-\$ or US-6106737-\$ or US-6042687-\$ or US-5994662-\$ or US-5935373-\$ or US-5916455-\$ or US-5897059-\$ or US-5851558-\$ or US-5104634-\$ or US-4943345-\$).did.	USPAT	OR	ON	2009/05/14 07:50

S116	4	((("5935373") or ("5589002"))).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/05/14 07:52
S117	2	("6450117").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/05/22 20:21
S118	2	("6190496").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/05/22 20:30
S119	180	(ceramic with (showerhead)) and (wafer or substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:11
S120	160	S119 not jucha.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:13
S121	77	("4820371" I "4993358" I "5106453" I "5532190" I "5552017" I "5614026" I "5624498" I "5670218" I "5741363" I "5954887" I "6050506" I "6059885" I "6265311").PN. OR ("6444039"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/22 21:28
S122	3038	(ceramic with (nozzle)) and (wafer or substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:34
S123	412	S122 and (angle with (nozzle and holes))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:35
S124	385	S123 and plasma	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:39
S125	385	S124 not blood	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:39

S126	378	S125 and (reactor or chamber)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:39
S127	10	S126 not inkjet	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:40
S128	38	(US-20060196420-\$ or US-20060196603-\$ or US-20030177977-\$ or US-20050000441-\$ or US-20080121177-\$ or US-20080121178-\$ or US-20080121179-\$ or US-20080124944-\$).did. or (US-6383964-\$ or US-6302965-\$ or US-6821910-\$ or US-4439401-\$ or US-5772771-\$ or US-7294207-\$ or US-6786973-\$ or US-6737812-\$ or US-5865896-\$).did. or (JP-2006310481-\$ or JP-2007305890-\$ or JP-2006245533-\$).did. or (WO-200116396-\$).did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 21:43
S129	28	("0777680" I "2793081" I "2809098" I "2857204" I "2917370" I "2933259" I "2971822" I "3595618" I "3701480" I "3761577" I "3913845" I "4014654" I "4093705").PN. OR ("4439401").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/22 21:47
S130	2	("6565661").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/05/22 21:54
S131	6	("4590042" I "4792378" I "5268034" I "5464499" I "5624498" I "5728223").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/22 21:55
S132	0	Tue-Nguyen.in. and showerhead	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/22 22:02
S133	0	Tue-Nguyen.in. and showerhead	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 22:02
S134	46	Nguyen-Tue.in. and showerhead	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 22:02

S135	641	showerhead and (wafer or substrate) and @ad<"19981230"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 22:24
S136	84	S135 and (ceramic with showerhead)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 22:24
S137	557	S135 not S136	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 22:29
S138	92	S137 and ceramic and (gas with holes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/22 22:29
S139	44	("4512283" I "4612077" I "4993358" I "5000113" I "5024748" I "5074456" I "5376213").PN. OR ("5643394").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/22 22:34
S140	1	("6302965").PN.	USPAT; USOCR	OR	OFF	2009/05/22 23:04
S141	4	("5284519" I "6036783" I "6179920" I "6210485").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/22 23:04
S142	58	(US-20060196603-\$ or US- 20080124944-\$ or US- 20080121179-\$ or US- 20080121178-\$ or US- 20080121177-\$ or US- 20060196420-\$).did. or (US- 6821347-\$ or US-6450117-\$ or US- 6829056-\$ or US-6444039-\$ or US- 6800139-\$ or US-6070551-\$ or US- 5453124-\$ or US-6403491-\$ or US- 6001267-\$ or US-5522934-\$ or US- 6230651-\$ or US-5734143-\$ or US- 5571366-\$ or US-5338363-\$ or US- 5200016-\$ or US-4992301-\$ or US- 6500314-\$ or US-6475571-\$ or US- 6391148-\$ or US-6270862-\$ or US- 6221221-\$ or US-6214162-\$ or US- 6190495-\$ or US-6077357-\$ or US- 6076483-\$ or US-6013155-\$).did. or (US-5900103-\$ or US-5567267- \$ or US-5421595-\$ or US-5356672- \$ or US-5024716-\$ or US-4989541- \$ or US-4439401-\$ or US-4270999- \$ or US-6237526-\$ or US-6132805- \$ or US-6106737-\$ or US-6042687- \$ or US-5994662-\$ or US-5935373- \$ or US-5916455-\$ or US-5897059- \$ or US-5851558-\$ or US-5104634- \$ or US-4943345-\$ or US-5589002-	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/25 13:56

		\$ or US-6190496-\$ or US-3913845-\$ or US-6565661-\$ or US-5643394-\$ or US-6302965-\$).did. or (US-2857204-\$).did.				
S143	2	("6450117").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/05/25 13:57
S144	45	("4282267" I "4433228" I "4576692" I "4738748" I "4818326" "4831963" I "4863561" I "4867841" I "5002632" I "5010842" "5084126" I "5158644" I "5282899" I "5312519" I "5356478" "5382316" I "5389197" I "5413954" I "5449411" I "5637237" "5772771" I "5976993" I "6085690").PN. OR ("6450117"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/25 13:59
S145	86	("20010011526" I "20010045187" I "20020007790" I "20020043216" I "20020052097" I "20020073924" I "20020076490" I "20020076507" I "20020076508" I "20020094689" I "20020100418" I "20020104481" I "20020108714" I "20020127745" I "20020144655" I "20020162506" I "20020164420" I "20020195056" I "20020197402" I "20030023338" I "20030027428" I "20030027431" I "20030066483" I "20030070609" I "20030070617" I "20030070618" I "20030075273" I "20030079686" I "20030098372" I "20030098419" I "20030106490" I "20030121608" I "20030192645" I "5131752" I "5200023" I "5377429" I "5480818" "5589002" I "5599513" I "5643394" I "5788778" I "5792269" "5851849" I "5879459" I "5908947" I "5932286" I "5968587" "5972430" I "6042652" I "6059885" I "6079426" I "6109206" "6139700" I "6143659" I "6144060" I "6174377" I "6174809" "6203613" I "6237529" I "6270572" I "6287965" I "6297539" "6305314" I "6329297" I "6342277" I "6346477" I "6374831" "6387185" I "6387207" I "6428859" I "6450117" I "6451119" "6461436" I "6503330" I "6509280" I "6534007" I "6534395" "6540838" I "6551929" I "6562140" I "6573184" I "6579372" "6579374" I "6630201" I "6635965" I "6638879").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/25 14:08



S146	10	("4590042" I "4612077" I "4612432" I "4780169" I "5006220" I "5074456" I "5180467" I "5248371" I "5445699" I "5449410").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/05/25 14:10
S147	5638	plasma and (ceramic with electrode) and (wafer or substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/25 14:24
S148	42040	plasma and (silicon with electrode) and (wafer or substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/25 14:25
S149	48	plasma and (ceramic with (showerhead and electrode)) and (wafer or substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/25 14:25
S150	2	("5792269").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/05/25 14:33
S151	4	((("5,935,373") or ("5792269")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/20 17:26
S152	60	(US-20060196603-\$ or US-20080124944-\$ or US-20080121179-\$ or US-20080121178-\$ or US-20080121177-\$ or US-20060196420-\$).did. or (US-6821347-\$ or US-6450117-\$ or US-6829056-\$ or US-6444039-\$ or US-6800139-\$ or US-6070551-\$ or US-5453124-\$ or US-6403491-\$ or US-6001267-\$ or US-5522934-\$ or US-6230651-\$ or US-5734143-\$ or US-5571366-\$ or US-5338363-\$ or US-5200016-\$ or US-4992301-\$ or US-6500314-\$ or US-6475571-\$ or US-6391148-\$ or US-6270862-\$ or US-6221221-\$ or US-6214162-\$ or US-6190495-\$ or US-6077357-\$ or US-6076483-\$ or US-6013155-\$).did. or (US-5900103-\$ or US-5567267-\$ or US-5421595-\$ or US-5356672-\$ or US-5024716-\$ or US-4989541-\$ or US-4439401-\$ or US-4270999-\$ or US-6237526-\$ or US-6132805-\$ or US-6106737-\$ or US-6042687-\$ or US-5994662-\$ or US-5935373-\$ or US-5916455-\$ or US-5897059-\$ or US-5851558-\$ or US-5104634-	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 17:28

		\$ or US-4943345-\$ or US-5589002-\$ or US-6190496-\$ or US-3913845-\$ or US-6565661-\$ or US-5643394-\$ or US-6302965-\$ or US-5792269-\$ or US-5680013-\$).did. or (US-2857204-\$).did.				
S153	25	("4473736" I "4609808" I "4894510" I "5032202" I "5053678" I "5081398" I "5389154" I "5432315").PN. OR ("5734143").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 17:42
S154	31	("5158644" I "5589002").PN. OR ("5792269").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 17:48
S155	32	(showerhead and plasma and ceramic) and (hole with angle)	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 18:01
S156	2	plasma and (showerhead with ceramic) and (hole with angle)	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 18:01
S157	439	plasma and (nozzle with ceramic) and (hole with angle)	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 18:03
S158	365	S157 and ((chamber or reactor or vessel) with (wafer or substrate))	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 18:04
S159	3	S158 not inkjet	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 18:04
S160	81	(US-20060196420-\$ or US-20060196603-\$ or US-20030177977-\$ or US-20050000441-\$ or US-20080121177-\$ or US-20080121178-\$ or US-20080121179-\$ or US-20080124944-\$ or US-20020088545-\$ or US-20050092245-\$ or US-20060219361-\$ or US-20060096540-\$ or US-20020086106-\$ or US-20050051087-\$ or US-20050241766-\$ or US-20050241765-\$ or US-20050268843-\$ or US-20050230505-\$ or US-20060130756-\$ or US-20020039625-\$).did. or (US-6383964-\$ or US-6302965-\$ or US-6821910-\$ or US-4439401-\$ or US-5772771-\$ or US-7294207-\$ or US-6786973-\$ or US-6737812-\$ or US-5865896-\$ or US-6143078-\$ or US-1968348-\$ or US-3929291-\$ or US-6989061-\$ or US-5931392-\$ or US-6869499-\$ or US-6325853-\$ or US-5160746-\$ or US-7510624-\$ or US-6450117-\$).did. or (JP-2006310481-\$ or JP-2007305890-\$ or JP-2006245533-\$).did. or (WO-200116396-\$ or US-20030070620-\$).did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:07

S161	46	S160 and plasma	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:09
S162	4	("5284519"   "6036783"   "6179920"   "6210485").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 18:14
S163	12	Umotoy-Salvador.in.	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/20 18:16
S164	17	Umotoy-Salvador.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:16
S165	0	"dispersion plate" and "aploed materials".asn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:22
S166	71	"dispersion plate" and "applied materials".asn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:22
S167	53	S166 and plasma	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:22
S168	0	plasma and ("ceramic nozzle") and (hole and angle)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:55
S169	2	plasma and (ceramic and nozzle) and (hole and angle)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:55
S170	0	plasma and (ceramic and injector) and (hole and angle)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:56
S171	4	plasma and (insulator and (injector or nozzle)) and (hole and angle)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 18:56
S172	2	plasma and (ceramic and (injector or nozzle)) and (hole and angle)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 19:00
S173	9	plasma and (insulat\$3 and (injector or nozzle)) and (hole and angle)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 19:01
S174	106	plasma and (insulat\$3 or ceramic) and (hole and angle)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/20 19:03

S175	6	((("5,935,373")) or ("5792269")) or ("5680013")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/20 19:15
S176	3	((("5935373")) or ("5792269")) or ("5680013")).PN.	USPAT; USOCR	OR	OFF	2010/02/18 09:46
S177	71	(US-20060196603-\$ or US-20080124944-\$ or US-20080121179-\$ or US-20080121178-\$ or US-20080121177-\$ or US-20060196420-\$).did. or (US-6821347-\$ or US-6450117-\$ or US-6829056-\$ or US-6444039-\$ or US-6800139-\$ or US-6070551-\$ or US-5453124-\$ or US-6403491-\$ or US-6001267-\$ or US-5522934-\$ or US-6230651-\$ or US-5734143-\$ or US-5571366-\$ or US-5338363-\$ or US-5200016-\$ or US-4992301-\$ or US-6500314-\$ or US-6475571-\$ or US-6391148-\$ or US-6270862-\$ or US-6221221-\$ or US-6214162-\$ or US-6190495-\$ or US-6077357-\$ or US-6076483-\$ or US-6013155-\$).did. or (US-5900103-\$ or US-5567267-\$ or US-5421595-\$ or US-5356672-\$ or US-5024716-\$ or US-4989541-\$ or US-4439401-\$ or US-4270999-\$ or US-6237526-\$ or US-6132805-\$ or US-6106737-\$ or US-6042687-\$ or US-5994662-\$ or US-5935373-\$ or US-5916455-\$ or US-5897059-\$ or US-5851558-\$ or US-5104634-\$ or US-4943345-\$ or US-5589002-\$ or US-6190496-\$ or US-3913845-\$ or US-6565661-\$ or US-5643394-\$ or US-6302965-\$ or US-5792269-\$ or US-5680013-\$).did. or (US-7387685-\$).did. or (US-2857204-\$ or US-1968348-\$).did. or (JP-2006310481-\$ or JP-2006245533-\$).did. or (DE-2419148-\$ or BE-851932-\$ or EP-401829-\$ or CA-2209274-\$ or JP-09181065-\$ or US-6302965-\$ or US-5792269-\$).did.	US-PGPUB; USPAT; USOCR; JPO; DERWENT	OR	ON	2010/02/18 14:28

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